Korea. Representations of positive ternary quadratic forms.
A positive definite quadratic form $f$ is said to be regular if it globally represents all integers that are represented by the genus of $f$. In 1997, Jagy, Kaplansky and Schiemann provided a list of 913 candidates of primitive positive definite regular ternary quadratic forms, and all but 22 of them are verified to be regular. In this talk we show that 8 forms among 22 candidates are, in fact, regular. At the end of the talk, we show some finiteness result on ternary forms that represent every eligible integer in some arithmetic progression. (Received July 30, 2008)

